

**DRAFT**

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# TANK CLOSURE REPORT

**ELEMENTIS PIGMENTS INC.  
1525 WOOD AVENUE  
EASTON, PENNSYLVANIA**

*Prepared for:*

**Elementis Pigments Inc.  
Wycoffs Mill Road  
Hightstown, New Jersey 08570**

*Prepared by:*

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**John Musco, Project Manager**

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**Nicholas De Rose, P.G. , Vice President**

**14 January, 2002  
3576201**



**Langan**  
Engineering and Environmental Services, Inc.

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## **1.0 INTRODUCTION**

This Tank Closure Report documents the underground storage tank system closure and removal activities conducted at the Elementis Pigments Inc. facility located at 1525 Wood Avenue, Easton, Pennsylvania. A site location map is provided as Figure 1. The project involved the decommissioning and removal of two 15,000-gallon No. 4 fuel oil underground storage tanks (USTs) and associated piping and valve vault. Site assessment activities were completed following UST removal activities. Soil sampling was conducted to confirm the removal of petroleum impacted soil and groundwater sampling was conducted to determine if the shallow groundwater was impacted by the operation of the UST system. This tank closure report was prepared by Langan Engineering and Environmental Services, Inc. (Langan) for Elementis Pigments Inc. (Elementis). The work completed for this project was performed in accordance with the Pennsylvania Department of Environmental Protection (PADEP) Closure Requirements for Underground Storage Tanks Systems document, effective 1 April 1998 and the PADEP's Land Recycling and Environmental Remediation Standards Act, revised 24 November 2001.

### **1.1 Objective**

The objective of this project was to remove two 15,000-gallon No. 4 fuel oil UST's and associated piping and valve vault, conduct required soil and/or groundwater remediation activities, and to complete an assessment of the soil and groundwater quality surrounding the UST system.



## 1.2 Scope of Services

The scope of services completed by Langan included:

- ◆ Contracted B & F Petroleum of Reading, Pennsylvania to complete the UST system decommissioning and removal of the two 15,000-gallon No. 4 fuel oil USTs and associated pipe runs.
- ◆ Conducted technical oversight of the UST system removal activities, soil and groundwater remediation, and backfilling activities.
- ◆ Collected post-excavation soil samples to document the complete removal of petroleum impacted soil surrounding the UST system.
- ◆ Collected groundwater samples within the excavation to determine if the shallow groundwater has been impacted by the former operations of the UST system.
- ◆ Collected waste characterization soil samples for proper disposal of petroleum impacted soil.
- ◆ Coordinated soil disposal approvals, loading and transportation of all impacted soils to R3 Technologies in Morrisville, Pennsylvania.
- ◆ Submitted all samples to Wastex of Pottstown, Pennsylvania, a PADEP certified laboratory.

- ◆ Prepared this Tank Closure Report documenting the results of the tank removal and site assessment activities.

## **2.0 SITE DESCRIPTION**

The site is located at 1525 Wood Avenue, Northampton County, Easton, Pennsylvania. The facility is situated approximately 400 feet north of Pennsylvania State Route 22. A site location map is provided as Figure 1. The facility consists of several industrial buildings and other structures used in the production of pigments, specifically, iron oxide. The remainder of the property consists of asphalt, gravel and wooded areas. Bushkill Creek flows adjacent to the site to the east, and Spring Brook flows through the site. A site plan is provided as Figure 2.

## **3.0 REGIONAL AND SITE GEOLOGY**

### **3.1 Regional Geologic Setting**

The subject site is located within the Great Valley Section of the Ridge and Valley Physiographic Province according to the Pennsylvania Department of Conservation and Natural Resources Physiographic Provinces Map of Pennsylvania, 2000. This province is characterized by very broad valleys with low to moderate relief. The rock type includes shale and sandstone.

According to the Geologic Map of Pennsylvania (1980), the Leithsville Formation exists below the site which is from the Cambrian Age. This formation is characterized by medium to dark gray crystalline dolomite that is light olive-green in places weathered to light gray and yellowish brown. Massive bedded oolitic pink to gray mottled chert and

dark gray chert are present with thin shale and dolomitic shale interbeds and scattered sand grains.

The overburden material at the location of the site is classified as urban land, according to the Surficial Geology of the Pennsylvania Part of the Easton 7.5 Quadrangle, Northampton County, Pennsylvania, Pennsylvania Geological Survey, Fourth Series (Duane D. Brown, Open File Report 96-38, 1996). Urban land is characterized as cut and fill disturbing more than 50 percent of the ground surface which includes most areas with homes on one-half acre or smaller lots, commercial sites and industrial sites.

According to the United States Department of Agriculture Soil Conservation Service Soil Survey of Northampton County the site consists of urban land (Us) that occasionally floods. This soil is characterized by smooth or slightly concave flood plains. The soil material varies in color or in texture, but all of it consists of water-laid sediment. Most of the areas are long and narrow and parallel nearby streams. The groundwater median yield is 100 gallons per minute with larger yields obtained from solution openings according to the Engineering Characteristics of the Rocks of Pennsylvania, Department of Environmental Resources, Office of Resources Management, Bureau of Topographic and Geologic Survey (1982).

### **3.2 Site Geology**

The majority of subsurface material encountered during the excavation activities consisted of gray, fine stone backfill material. The native soil that was encountered on the sidewalls of the excavation consisted of light brown fine sand and silt with trace

amounts of mottled gray clay. Groundwater was encountered in the excavation at a depth generally between seven (7) and nine (9) feet below grade.

#### **4.0 UST SYSTEM REMOVAL AND SITE ASSESSMENT ACTIVITIES**

Between 11 October and 19 October 2001, UST system removal and site assessment activities were conducted at the Elementis Facility. The UST activities consisted of the decommissioning and removal of two single-walled steel 15,000-gallon No. 4 fuel oil UST's and associated piping and valve vault, performing soil remediation and site assessment activities. The site assessment activities consisted of an evaluation of the soil surrounding the UST system and the groundwater within the excavation. In addition, soil load out was completed on 20 November 2001 and 14 December 2001 to remove the petroleum impacted soil from the site. The UST system removal was completed by B & F Petroleum of Reading, Pennsylvania. An environmental scientist from Langan was onsite during the entire removal activities to conduct air monitoring, technical oversight and soil and groundwater sampling.

##### **4.1 UST System Removal**

On 11 October 2001, site activities were initiated. In house site plans of the UST system location were obtained and reviewed to locate underground utilities and the system configuration. Sludge and product was observed in the two USTs No. 6 (from 6 to 18 inches). Hazleton Oil Salvage of Hazelton, Pennsylvania was contracted to vacuum out the remaining sludge. Hazleton Oil pumped the remaining residual product, although the vacuum truck that was used was unable to vacuum the remaining sludge due to its high viscosity. The remainder of the sludge was removed after the tanks were removed from the excavation. Removal of the soil surrounding the two 15,000-gallon USTs began on

11 October 2001 with a John Deere 690D excavator. Clean backfill was removed from the north and east side of the USTs and staged onsite. A formerly abandoned in-place railroad car was identified on the east side of the excavation approximately two to three feet below grade. According to Elementis personnel, this railroad tanker car was formerly used for storing fuel oil and was previously abandoned in place.

The product pipes were drained and removed from a pipe trench that led to the adjacent pump house. In addition, a valve vault containing piping and valves associated with the USTs, pump house and remote fill ports was removed. The pipe trench was constructed of an earthen floor and wood sidewalls, and was two (2) feet deep. The valve vault was a 4.5 foot by 5.5 foot concrete cell with a concrete floor, 3.5 foot deep, partially situated below existing grade. The wood, metal piping and concrete removed from these structures were staged for proper disposal.

#### **4.2 Soil and Groundwater Remedial Activities**

Between 11 and 18 October 2001, highly stained soil was observed at a depth of six feet below grade. The removal of this soil was completed extending to the top of the water table throughout the entire excavation which was initially encountered at a depth of 7 to 9 feet.

Between 15 and 17 October 2001, a vacuum truck was onsite to remove the product/water mixture in the tanks and the observed free product on the water surface.

Impacted soil removal was staged on poly sheeting pending proper disposal. Separate phase product was observed on the groundwater, although it was not of measurable

thickness. Upon removal of all accessible impacted soils, the metal tie down straps anchoring the USTs to the concrete slab were removed and both USTs were removed from the resting position.

On 17 October 2001, a 70-ton Am Quip Crane was used to remove both USTs from the excavation. The USTs were placed on trailers for transport to Troxell Iron and Scrap in Lehigh, Pennsylvania for recycling. A copy of the tank disposal documentation is included in Appendix A. After removal, small holes were observed on the bottom of each UST. Additional impacted backfill material was removed below the water table, which was observed at approximately ten (10) feet below grade once the tanks were removed. The vacuum truck was used to remove the film of product that was observed on the groundwater surface. Following UST removal, the remainder of the sludge was removed from the interior of the tanks.

On 18 October 2001, Hazelton Oil vacuumed additional product from the groundwater surface that reappeared overnight. UST and impacted soil disposal and oil recycling documentation is presented in Appendix B. A total of 6,750 gallons of No. 4 fuel oil/water mixture was removed from the USTs and excavation. Additional impacted backfill material was removed down to the concrete anchor slabs, which were encountered at approximately 15 feet below grade. In addition, visually impacted soil on the excavation sidewalls was removed. Groundwater was encountered at depths ranging between eight and nine feet below grade. Additional product was vacuumed from the groundwater surface before back filling was initiated. A photoionization detector was used to conduct air monitoring and screen soils not visibly stained for the presence of volatile organic compounds throughout the entire UST system removal.

A total of 332.93 tons of impacted soil and 6,750 gallons of oil and water were removed from the UST excavation. Soil and liquid disposal documentation is included in Appendix B.

Photographic documentation of the UST system removal is presented in Appendix C.

The excavation was backfilled with ¾-inch clean stone to two feet below grade and 2A modified stone to grade. Two groundwater observation points were installed to an approximate depth of 15 feet in the excavation during backfilling activities on 18 and 19 October 2001. The groundwater observation points consisted of 4-inch diameter 40 Schedule PVC screening and riser pipe with a flush-mount protective steel casing installed at grade. These points were installed to allow for monitoring for the presence of free phase NAPL in the excavation. Subsequent site inspections were conducted on 20 November and 14 December 2001. No free phase NAPL was observed in either observation point.

#### **4.3 Soil and Groundwater Sampling Procedures and Results**

Upon completion of soil excavation and product removal activities, post-excavation soil sampling activities were conducted in the tank and pipe trench excavation to confirm the complete removal of impacted soil above the water table. Soil sampling was completed with a stainless steel spatula directly from the excavator bucket and transferred to the sample bottles. The soil samples were analyzed for benzene and naphthalene by U.S. EPA Method 8260B, and fluorene, anthracene, phenanthrene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene and benzo(g,h,i)perylene by U.S. EPA Method 8270C.

Post-excavation soil samples PE-1 and PE-2 were collected from 3.5 feet to 4 feet below grade. Sample PE-1 was collected in the pipe trench on the west side of the valve vault, and PE-2 was collected below the two remote fill ports. Three soil samples (PE-3 through PE-5) were collected from three excavation sidewalls at the six-inch interval above the groundwater surface on 18 October 2001. Two soil samples (PE-6 and PE-7) were collected at the six-inch interval above the groundwater surface in the pipe trench on 19 October 2001. Soil samples in the pipe trench were biased toward piping elbows and joints. Table 1 presents a summary of the post excavation soil sampling results. Figure 3 illustrates the post-excavation soil sampling locations and results.

No targeted volatile organic or base neutral compounds were detected above the PADEP Residential Soil Medium Specific Concentrations (MSC's) in any collected samples (PE-1 to PE-7). No targeted compounds were detected in the trip blank.

In addition, two groundwater samples (GW-1 and GW-2) were collected from the excavation. The groundwater samples were collected with a disposable bailer and transferred directly to the sample bottles. The groundwater samples were analyzed for benzene and naphthalene by U.S. EPA Method 8260B and phenanthrene, pyrene and chrysene by U.S. EPA Method 8270C. A summary of the groundwater results is presented on Table 2. Figure 3 illustrates the groundwater sample locations and results.

A summary of the groundwater sampling results is as follows:



- ◆ Benzene and naphthalene were not detected above their respective PADEP Residential Used Aquifer Groundwater MSCs in either of the collected groundwater samples.
- ◆ Chrysene (4 ug/l) was detected in sample GW-1 above it's PADEP Groundwater MSC of 1.9 ug/l. Phenanthrene (15 ug/l) and pyrene (3 ug/l) were also detected in GW-1 below their respective PADEP Residential, Used Aquifer Groundwater MSCs.
- ◆ Phenanthrene (4 ug/l) was detected in sample GW-2 below its respective PADEP Groundwater MSC.
- ◆ No targeted compounds were detected in the field or trip blanks.

A summary of the analytical results are presented on Tables 1 and 2 and annotated on Figure 3. Complete laboratory data packages are included in Appendix D.

#### **4.4 Quality Assurance/Quality Control**

The following sections outline the field and laboratory quality assurance/quality control measures that were incorporated into this investigation.

##### **Equipment Decontamination**

All sampling equipment was decontaminated to prevent cross-contamination which could result in inaccuracies in the sample analytical results. All soil samples were collected using a decontaminated stainless steel spatula or trowel. Prior to and between field

implementation, all equipment was manually scrubbed with non-phosphate detergent and rinsed with tap water followed by a DI water rinse.

### **Equipment Calibration**

The Photoionization Detector (PID) was calibrated with certified calibration gas prior to field implementation. The scale utilized for soil sampling using methanol extraction/preservation method was calibrated using certified calibration weights.

### **Field Blanks & Trip Blanks**

Field quality assurance/quality control for soil sampling was documented through trip blanks. Soil trip blanks consist of laboratory grade methanol prepared by the analytical laboratory, which accompany soil samples at a rate of one per shipment, or two-day sampling event. Field quality assurance and control for groundwater sampling was documented through field and trip blanks. Groundwater trip blanks consist of laboratory prepared bottles of DI water, which accompany water samples at a rate of one per shipment or 2 day sampling event. Field blanks are prepared by using laboratory provided DI water and pouring it over clean stainless steel trowels and collecting the water in sample bottles.

## **4.5 Waste Characterization and Disposal**

Two waste characterization soil samples of the excavated soil material were collected on 18 October 2001. The samples were analyzed for total organic halides (TOX), total petroleum hydrocarbons (TPH), corrosivity, ignitability, reactivity, poly-chlorinated biphenyl's (PCBs) and total metals which included arsenic, barium, cadmium, total chromium, copper, lead, mercury, nickel, selenium, silver and zinc. Two additional

waste characterization samples of the excavated material were collected on 20 November 2001 and analyzed for TOX and TPH to support additional volume of soil.

After sample collection, all samples were immediately transferred to a sample shuttle in which the internal atmosphere was maintained at 4°C and delivered to Wastex Industries of Pottsville, Pennsylvania. All soil samples analyzed for volatile organic compounds were collected using methane preservation/extraction method.

Upon receipt of the analytical results, the impacted soils were approved by and taken to R3 Technologies of Morrisville, Pennsylvania. A total of 332.93 tons of soil was taken to R3 Technologies for thermal treatment. A copy of the soil treatment documentation is included in Appendix C.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Soil**

During UST system removal, heavy fuel oil staining was observed at depths generally greater than six feet below grade. Observed impacts above the groundwater surface were excavated until visual and PID readings were minimal. This generally corresponded to a depth of 9 feet. Approximately 332 tons of impacted backfill material and native soil was excavated and properly treated. Seven post excavation soil samples were collected between the UST and pipe trench excavations. No exceedances of the PADEP Residential Soil MSC's were detected in any of the collected soil samples. Based on these conclusions and observations, no further action with respect to the soil is recommended.

## 5.2 Groundwater

The former operation of the UST system has impacted the shallow groundwater at the site. This conclusion is based on the groundwater impacts that were observed during the UST system removal as separate phase petroleum product on the groundwater surface. The film of product observed on the groundwater surface was removed using a vacuum truck. The analytical results from the collected groundwater samples revealed that only chrysene was identified above the PADEP Residential, Used Aquifer Groundwater MSC. In addition, no separate phase product was observed on the groundwater surface in the existing well points in recent measurements taken on 20 November and 14 December 2001. Site groundwater is currently being investigated under a separate project. Based on these conclusions and the current remedial work being completed with respect to groundwater, no further action is recommended as part of the UST removal.

## TABLES

**Table 1**  
**Elementis Pigments, Inc**  
**Easton, Pennsylvania**  
**Summary of Post Excavation Soil Sampling Analytical Results**

Parameters	PADEP Residential Used Aquifer Soil MSC TDS < 2,500	Sample ID Sample Location Lab Sample Number Sampling Date Depth (feet) Units	001 PE-1 AC33001 12-Oct-01 3.5'-4' Result	002 PE-2 AC33002 12-Oct-01 3.5'-4' Result	006 PE-3 AC33006 18-Oct-01 9.5'-10' Result	007 PE-4 AC33007 18-Oct-01 9.5'-10' Result	008 PE-5 AC33008 18-Oct-01 9'-9.5' Result	011 PE-6 AC33011 19-Oct-01 7'-7.5' Result	012 PE-7 AC33012 19-Oct-01 7'-7.5' Result	009 TB AC33009 n/a n/a Result
<b>Volatile Organic Compounds</b>										
benzene	0.5	mg/kg	<0.240	<0.210	<0.220	<0.240	<0.240	<0.310	<0.230	<0.230
naphthalene	25	mg/kg	<0.360	<0.320	<0.330	<0.350	<0.350	<0.470	1.7	<0.350
<b>Base Neutral Compounds</b>										
fluorene	3000	mg/kg	<0.081	<0.073	<0.078	<0.079	<0.083	2.6	4.1	NA
anthracene	350	mg/kg	<0.081	<0.073	<0.078	<0.079	<0.083	<0.790	<0.790	NA
phenanthrene	10,000	mg/kg	<0.081	<0.073	<0.078	<0.079	<0.083	5.5	7.0	NA
pyrene	2,200	mg/kg	<0.081	0.077	<0.078	<0.079	<0.083	1.2	1.2	NA
benzo(a)anthracene	25	mg/kg	<0.081	<0.073	<0.078	<0.079	<0.083	<0.790	<0.790	NA
chrysene	230	mg/kg	<0.081	0.11	<0.078	<0.079	<0.083	1.0	1.1	NA
benzo(b)fluoranthene	25	mg/kg	<0.081	<0.073	<0.078	<0.079	<0.083	<0.790	<0.790	NA
benzo(a)pyrene	2.5	mg/kg	<0.081	<0.073	<0.078	<0.079	<0.083	<0.790	<0.790	NA
benzo(ghi)perylene	180	mg/kg	<0.081	<0.073	<0.078	<0.079	<0.083	<0.790	<0.790	NA

mg/kg = milligrams per kilogram

NA = Not Analyzed

ND = Not Detected

n/a = Not applicable

MSC = Medium Specific Concentration

**Table 2**  
**Elementis Pigments, Inc**  
**Easton, Pennsylvania**  
**Summary of Groundwater Sampling Analytical Results**

Parameters	PADEP Residential Used Aquifer Groundwater MSC TDS < 2,500	Sample ID Sample Location Lab Sample Number Sampling Date Depth (feet) Units	003 GW-1 AC33003 18-Oct-01 n/a Result	004 GW-2 AC33004 18-Oct-01 n/a Result	005 FB AC33005 18-Oct-01 n/a Result	010 TB AC33010 n/a n/a Result
<b>Volatile Organic Compounds</b>						
benzene	5	ug/l	<0.002	<0.002	<0.002	<0.002
naphthalene	100	ug/l	22	9	<0.003	<0.003
<b>Base Neutral Compounds</b>						
phenanthrene	1100	ug/l	15	4	<0.002	NA
pyrene	130.0	ug/l	3	<0.002	<0.002	NA
chrysene	1.9	ug/l	4	<0.002	<0.002	NA
	4	Exceeds PADEP Residential Used Aquifer Groundwater MSC				

mg/kg-milligrams per kilogram

NA-Not Analyzed

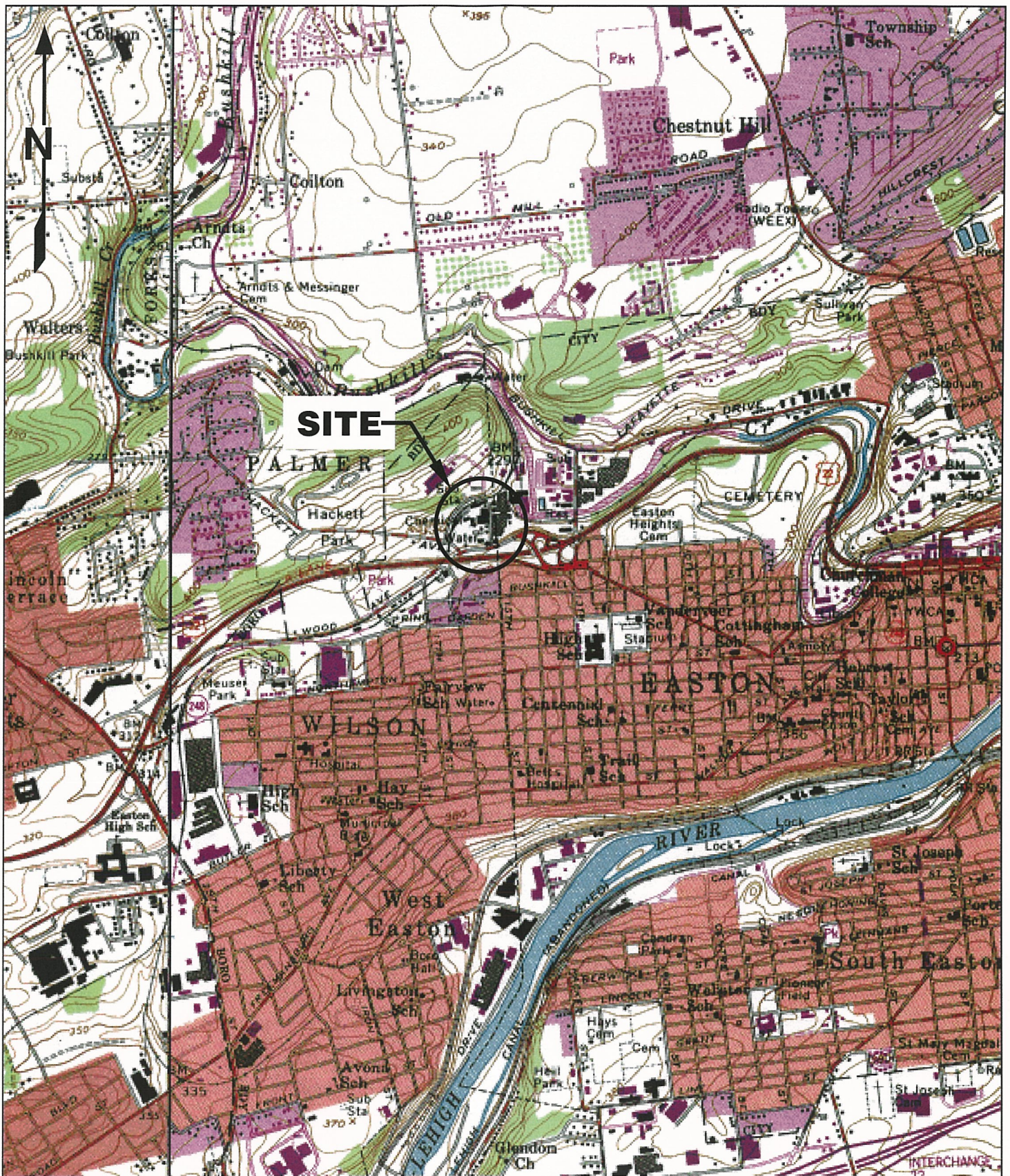
ND-Not Detected

n/a-Not applicable

MSC-Medium Specific Concentration

## FIGURES





Ref: Easton, Pennsylvania U.S.G.S. Quadrangle Map



**Langan Engineering  
and Environmental Services, Inc**  
Elmwood Park, NJ Doylestown, PA Philadelphia, PA  
Miami, FL New Haven, CT New York, NY

## Elementis Pigments, Inc. Site Location Map

Easton

Pennsylvania

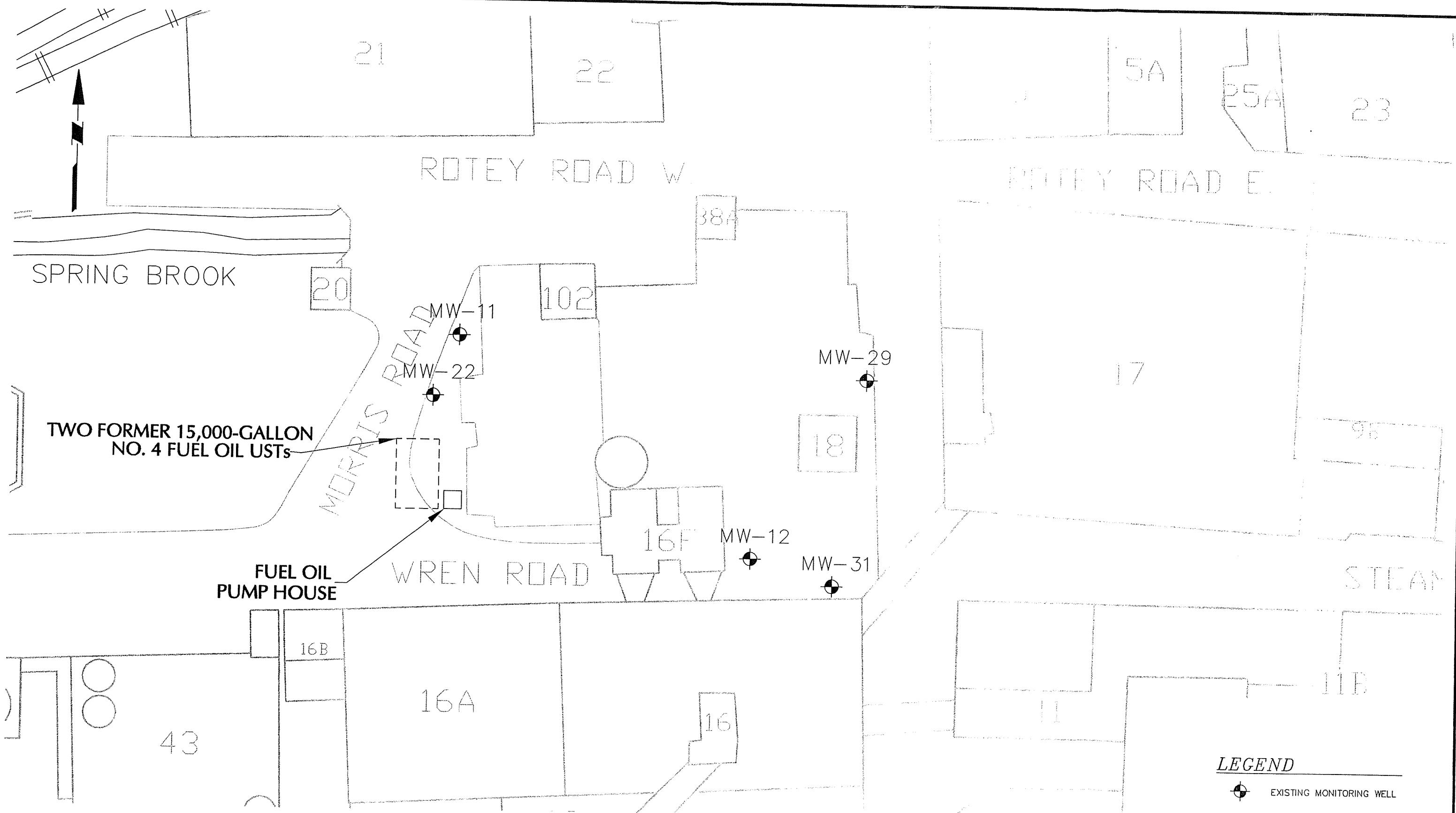
Job No. 3576201

Date 10-29-01

Scale 1"=2000'

Fig. 1




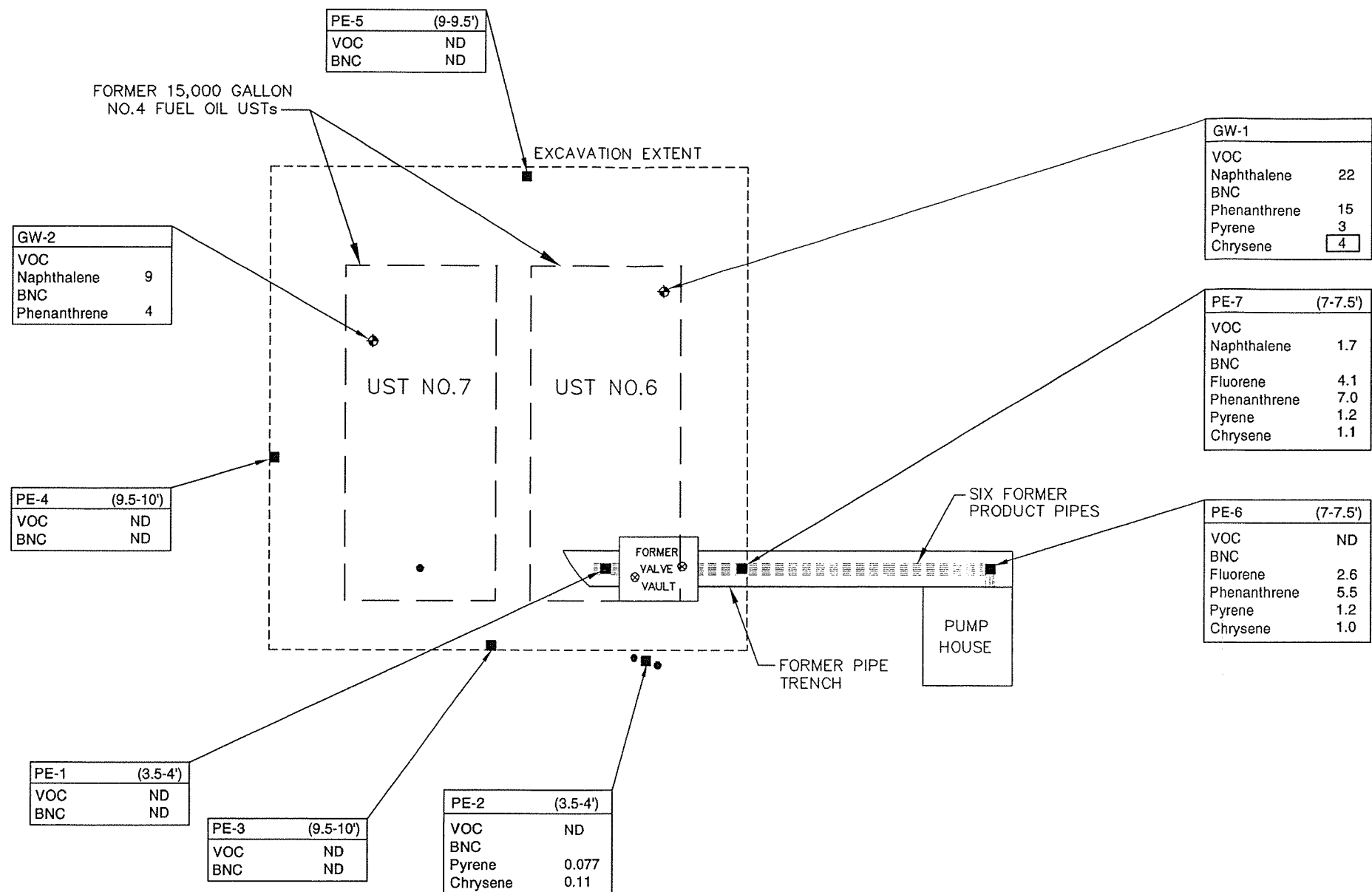


**LEGEND**

⊕ EXISTING MONITORING WELL

NOTE:  
 ALL BUILDING AND EXISTING MONITORING WELL  
 LOCATIONS ARE APPROXIMATE BASED ON  
 ELEMENTIS PIGMENTS PLANT MAP,  
 DRAWING FGR103975, DATED 8/9/90, (REVISED 1/99).

 <b>Langan</b> Engineering and Environmental Services (201) 794-6900      (215) 348-7101 Elmwood Park, NJ      Doylestown, PA.      Miami, FL		<b>ELEMENTIS PIGMENTS, INC.</b> <b>SITE PLAN</b>		PA
EASTON Job No. 3576201	Date 1-11-02	Scale APPROX. 1"=50'	FIGURE NO. 2	



## LEGEND

■	POST-EXCAVATION SOIL SAMPLE
⊕	GROUNDWATER SAMPLE LOCATION
●	FILL PORT
VOC	VOLATILE ORGANIC COMPOUNDS (INCLUDE Benzene and Naphthalene)
BNC	BASE NEUTRAL COMPOUNDS (INCLUDE Fluorene, Anthracene, Phenanthrene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthrene, Benzo(a)pyrene, Benzo(ghi)perylene. GROUNDWATER SAMPLES WERE ONLY ANALYZED FOR Phenanthrene, Pyrene and Chrysene.
ND	COMPOUNDS NOT DETECTED ABOVE THE METHOD DETECTION LIMIT
4	EXCEEDS PADEP GROUNDWATER MEDIUM SPECIFIC CONCENTRATION

## NOTES:

- ALL RESULTS ARE PRESENTED IN MILLIGRAMS PER KILOGRAM (mg/kg)
- ONLY RESULTS DETECTED ABOVE THEIR RESPECTIVE MDL ARE PRESENTED

**Langan** Engineering and Environmental Services  
(201) 794-6900 (215) 348-7101  
Elmwood Park, NJ Doylestown, PA Miami, FL

Project **ELEMENTIS PIGMENTS, INC.**  
POST-EXCAVATION SOIL AND GROUNDWATER  
SAMPLE LOCATIONS AND RESULTS  
EASTON PENNSYLVANIA

Job No.	3576201	Date	01-07-02	Scale	1"=10'	Dwg. No.	3
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**APPENDIX A**

**TANK DISPOSAL DOCUMENTATION**

**(TO BE PROVIDED WITH FINAL REPORT)**

## **APPENDIX B**

### **SOIL AND LIQUID DISPOSAL DOCUMENTATION**

**HAZLETON OIL SALVAGE LTD.**

P.O. Box No. 2339 Hazleton, PA 18201

Phone # 800-458-3496 or 570-454-3464

EPA # PA0000101816 - PADEP # 301295

**H.O.S. LTD. TAKES FULL RESPONSIBILITY**  
For The Pickup, Transportation And Disposition  
Of All Waste Effluent Accepted By Our Company  
**YOU CAN TRUST US WITH ALL YOUR DISPOSAL NEEDS**

Customer PO # 10515 WORK ORDER #  
Phone                      NO 60150  
Bill To: B+F Petroleum  
Address                       
City, State Reading Pa Zip                     

Date 10/11/01 Driver BM / Vehicle 94  
Job Site Element's Pigments  
Address                      City                       
Wood Ave Easton Pa  
Time Arrived                      Time Finished                     

QUANTITY UNITS IF PRICED: USE AS YOUR INVOICE UNIT PRICE TOTALS

400	gal	Waste Water pumped				
600	gal	Waste #2 fuel oil pumped from UST				
TANK CLEANING	<input checked="" type="checkbox"/> IF YES	EXCESS TANK TIME:                      hrs.                      min.				
Driver Signature if COD	<input checked="" type="checkbox"/> IF CASH	CHECK NUMBER	NET 15 DAYS	TOTAL:		

**GENERATOR CERTIFIES HIS WASTE OIL PRODUCT IS NOT MIXED  
WITH HAZARDOUS WASTE OR MEASURABLE QUANTITIES OF PCB'S**

Accepted by: SIGNAccepted by: PRINTRepresentative of:                     1227

# HAZLETON OIL SALVAGE LTD.

**P.O. Box No. 2339 Hazleton, PA 18201**

**Phone# 800-458-3496 or 570-454-3464**

**EPA# PA0000101816 - PADEP# 301295**

## H.O.S. LTD. TAKES FULL RESPONSIBILITY

*For The Pickup, Transportation And Disposition  
Of All Waste Effluent Accepted By Our Company*

**YOU CAN TRUST US WITH ALL YOUR DISPOSAL NEEDS**

Customer PO # 12515 WORK ORDER #  
Phone                      No 59647  
Bill To: B + F Pet.  
Address                       
City, State Reading Zip                     

Date 10/15/01 Driver ST/CL Vehicle \_\_\_\_\_  
Job Site Elementis Pigments  
Address Easton City \_\_\_\_\_  
Time Arrived 12:00 Time Finished 3:00  
11:00

QUANTITY	UNITS	IF PRICED: USE AS YOUR INVOICE		UNIT PRICE	TOTALS
1730	gals	#4 oil tank bottoms pumped from (2) 15K UST			
		Vac Pl. Svc			
TANK CLEANING	<input checked="" type="checkbox"/> IF YES	EXCESS TANK TIME:                      hrs.                      min.			
Driver Signature if COD		<input checked="" type="checkbox"/> IF CASH	CHECK NUMBER	NET 15 DAYS	TOTAL:

GENERATOR CERTIFIES HIS WASTE OIL PRODUCT IS NOT MIXED  
WITH HAZARDOUS WASTE OR MEASURABLE QUANTITIES OF PCB'S

Accepted by: SIGN Accepted by: PRINT Representative of: Breed Meserve & Langen Eng.

# HAZLETON OIL SALVAGE LTD.

**P.O. Box No. 2339 Hazleton, PA 18201**

**Phone # 800-458-3496 or 570-454-3464**

**EPA # PA0000101816 - PADEP # 301295**

## H.O.S. LTD. TAKES FULL RESPONSIBILITY

*For The Pickup, Transportation And Disposition  
Of All Waste Effluent Accepted By Our Company*

*Of All Waste Effluent Accepted By Our Company*

**YOU CAN TRUST US WITH ALL YOUR DISPOSAL NEEDS**

Customer PO # 10513 WORK ORDER #  
Phone \_\_\_\_\_ NO 60359  
Bill To: B+F Petroleum  
Address \_\_\_\_\_  
City, State Reading Pa Zip \_\_\_\_\_

Date 10/17/01 Driver Bm Vehicle 97  
Job Site Elementis Pigments  
Address Easton PA City 18042  
Time Arrived 12:45 Time Finished 2:45

QUANTITY	UNITS	IF PRICED: USE AS YOUR INVOICE		UNIT PRICE	TOTALS
1300	gal	WASTE Water pumped from UST			
TANK CLEANING		✓ IF YES	EXCESS TANK TIME:          hrs.          min.		
Driver Signature if COD		✓ IF CASH	CHECK NUMBER	NET 15 DAYS	TOTAL:

GENERATOR CERTIFIES HIS WASTE OIL PRODUCT IS NOT MIXED  
WITH HAZARDOUS WASTE OR MEASURABLE QUANTITIES OF PCB'S

Accepted by: **SIGN** Jane B. / Accepted by: **PRINT** / Representative of: \_\_\_\_\_



**P.O. Box No. 2339 Hazleton, PA 18201**  
**Phone # 800-458-3496 or 570-454-3464**  
**EPA # PA0000101816 - PADEP # 301295**

**H.O.S. LTD. TAKES FULL RESPONSIBILITY**  
*For The Pickup, Transportation And Disposition*  
*Of All Waste Effluent Accepted By Our Company*  
**YOU CAN TRUST US WITH ALL YOUR DISPOSAL NEEDS**

Date 10/18/01 Driver St/V Vehicle \_\_\_\_\_  
Job Site Elementis Pigments  
Address Aston City \_\_\_\_\_  
Time Arrived 8:00 Time Finished 3:00

QUANTITY	UNITS	IF PRICED: USE AS YOUR INVOICE		UNIT PRICE	TOTALS
2,720	gals	Wt. water + oil emulsion and #4 oil tank bottoms. Pumped from excavation and (2) 15K HST'S			
		Vac To Ave-			
TANK CLEANING	✓ IF YES	EXCESS TANK TIME:                      hrs.                      min.			
Driver Signature if COD		✓ IF CASH	CHECK NUMBER	NET 15 DAYS	TOTAL:

GENERATOR CERTIFIES HIS WASTE OIL PRODUCT IS NOT MIXED  
WITH HAZARDOUS WASTE OR MEASURABLE QUANTITIES OF PCB'S

Accepted by: SIGN \_\_\_\_\_ Accepted by: PRINT \_\_\_\_\_ Representative of: \_\_\_\_\_

Globe Print Shop - Hazleton, PA



R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 5947  
Date: 11/20/01  
Time In: 12:03 PM

Time Out: 12:03 PM  
Manifest #: 55401

ON: LANGAN ENGINEERING

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

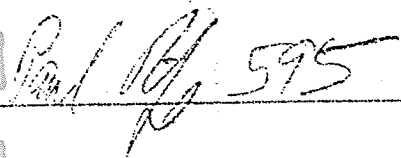
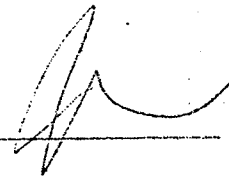
Truck: ovl 595

Gross: 76220

Tare: 23100

Net: 53040 Lbs. 26.52 Tons

Product: NO. 4 OIL

  
Lic: 06041 



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_

Company Name: (Print or Type) Monsters Pigments IncPick-up Address: 1525 Wood Avenue

(No.)

(Street)

(City)

(State)

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Waste Stream Identification: \_\_\_\_\_ This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: \_\_\_\_\_

Cubic Yards: 20

Other: (Specify) \_\_\_\_\_

Waste Type: Petroleum contaminated soilSpecial Handling Instructions, if any: NonePROFILE / WASTE STREAM I.D. NUMBER: LA20111010A4

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 11/20/01Signature: Chad Kemmle

(Name and Title)

Eng. Manager

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_

(if applicable)

COMPANY NAME: OVERLAND SERV.ADDRESS: 537 CLARKSBURG, N.J.Pick-up Date: 11/20/01Truck No.: 595Vehicle Lic. No.: AD130X/NJ

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: R3 Technologies, Inc.7 Steel Road EastMorrisville, PA 19067-0847Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: \_\_\_\_\_

(Signature of authorized agent and title)

11-20-01

R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 5948  
Date: 11/20/01  
Time In: 12:09 PM

LAN: LANGAN ENGINEERING

Time Out: 12:09 PM  
Manifest #: 55400

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

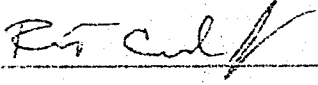
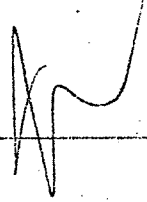
Truck: LT19

Gross: 80600

Tare: 27300

Net: 53300 Lbs. 26.65 Tons

Product: NO. 4 OIL

  
Lic: 06041 





technologies

Manifest No.: 55402

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_

Company Name: (Print or Type) Elemental Pigments Inc

Pick-up Address: 1525 Wood Avenue

(No.)

(Street)

(City)

(State)

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: \_\_\_\_\_

Cubic Yards: 20.7

Other: (Specify) \_\_\_\_\_

Waste Type: Pigment Pentamethyl diol

Special Handling Instructions, if any: None

PROFILE / WASTE STREAM I.D. NUMBER: LA1011101044

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 11/20/01

Signature: Chad Keith

(Name and Title)

Eng. Manager

2. Hauler of Waste (must be filled-in by hauler) EPA I.D. No.: \_\_\_\_\_

(if applicable)

COMPANY NAME: OVER LAND

ADDRESS: CLARKS BULLY

Pick-up Date: 11-20-01

Truck No.: DV01

Vehicle Lic. No.: AE67576

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**

**7 Steel Road East**

**Morrisville, PA 19067-0847**

**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 11-20-01

(Signature of authorized agent and title)

R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 5950  
Date: 11/20/01  
Time In: 01:19 PM

Time Out: 01:19 PM  
Manifest #: 55278

Customer: LANGAN ENGINEERING

Order #: LAN0111010A4

Trailer: OVERLAND TRANSPORT

Truck: LT17

Weight: 86320

Rate: 25500

Weight: 60820 Lbs. 30.41 Tons

Product: NO. 4 OIL

*Christie D.*

*[Signature]*  
Lic: 06041



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_

Company Name: (Print or Type) Clemente, Clemente Inc.Pick-up Address: 1525 Wood Avenue

(No.)

(Street)

(City)

(State)

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: \_\_\_\_\_

Cubic Yards: \_\_\_\_\_

Other: (Specify) \_\_\_\_\_

Waste Type: Petroleum Contaminated SoilSpecial Handling Instructions, if any: NonePROFILE / WASTE STREAM I.D. NUMBER: LANOI 1101044

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 11/20/01Signature: Paul R. Smith

(Name and Title)

Eng. Manager

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_

(if applicable)

COMPANY NAME: Oven LADADDRESS: CLARKSBURG, W.V.Pick-up Date: 11-20-01Truck No.: 17Vehicle Lic. No.: AE59696PA

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**  
**7 Steel Road East**  
**Morrisville, PA 19067-0847**  
**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: \_\_\_\_\_

(Signature of authorized agent and title)



R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 5951  
Date: 11/20/01  
Time In: 01:32 PM

Time Out: 01:32 PM  
Manifest #: 55277

Client: LANGAN ENGINEERING

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

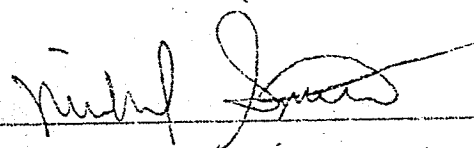
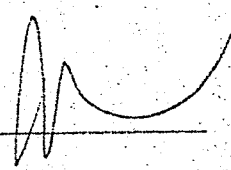
Truck: OVL 493

Gross: 78860

Tare: 26100

Net: 52760 Lbs. 26.38 Tons

Product: NO. 4 OIL

  
Lic: 06041 

Manifest No.: 55277



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

- 02885 NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste:

Company Name: (Print or Type)

Pick-up Address:

(No.)

(Street)

(City)

(State)

Telephone Number:

Fax Number:

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons:

Cubic Yards:

Other: (Specify)

Waste Type:

Special Handling Instructions, if any:

PROFILE / WASTE STREAM I.D. NUMBER:

LAN 0111010A4

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date:

11/20/01

Signature:

Chad Kern, Jr.

Eng. Manager

(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.:

OVERLAND

SERVICES

(if applicable)

COMPANY NAME:

OVERLAND SERVICES

ADDRESS:

CHICKS Bldg, W

Pick-up Date:

11/20/01

Truck No.:

493

Vehicle Lic. No.:

192424

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

Michael C. Smith

(Signature of authorized agent and title)

3. Processing Facility: R3 Technologies, Inc.

7 Steel Road East

Morrisville, PA 19067-0847

Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date:

(Signature of authorized agent and title)

11-20-01

R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 5952  
Date: 11/20/01  
Time In: 01:54 PM

LAN: LANGAN ENGINEERING

Job: LAN0111010A4

Time Out: 01:54 PM  
Manifest#: 55279

Cauler: OVERLAND TRANSPORT

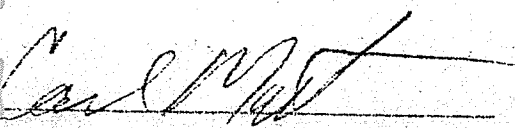
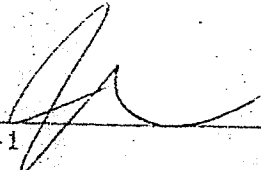
Truck: 059

Gross: 91160

Tare: 24920

Net: 66240 Lbs. 33.12 Tons

Product: NO. 4 OIL

  
Lic: 06041 

---

Manifest No.: 55279



R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_  
Company Name: (Print or Type) Lamentis P. M. Inc.  
Pick-up Address: 1525 Wood Avenue (No.) BTM (City) PA (State)  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.  
Tons: \_\_\_\_\_ Cubic Yards: 2 Other: (Specify) \_\_\_\_\_  
Waste Type: Petroleum Contaminated Soil  
Special Handling Instructions, if any: None

### PROFILE / WASTE STREAM I.D. NUMBER:

11/20/01 11/11/01 11/11/01

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 11/20/01 Signature: Chad R. Smith (Name and Title) Eng. Manager

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_ (if applicable)

COMPANY NAME: Overland Inc.

ADDRESS: Clarkburg NJ

Pick-up Date: 11/20/01 Truck No.: 059 Vehicle Lic. No.: AP 806L

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

Carl Smith  
(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**  
**7 Steel Road East**  
**Morrisville, PA 19067-0847**  
**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: \_\_\_\_\_

(Signature of authorized agent and title)

11-20-01

R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 5953  
Date: 11/20/01  
Time In: 05:35 PM  
Time Out: 05:35 PM  
Manifest #: 55280

LAN: LANGAN ENGINEERING

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

Truck: DVL

Gross: 83900

Tare: 26600

Net: 57300 Lbs. 28.65 Tons

Product: NO. 4 OIL

Lic: 06041

Manifest No.: 55280



technologies

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## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_

Company Name: (Print or Type) Clementes Investment Inc

Pick-up Address: 1505 Wood Avenue  
(No.) (Street) (City) (State)

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: \_\_\_\_\_ Cubic Yards: 7.2 Other: (Specify) \_\_\_\_\_

Waste Type: Petroleum

Special Handling Instructions, if any: None

PROFILE / WASTE STREAM I.D. NUMBER:

1 ADAT HIC 1 A 4

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 11/20/01 Signature: Shad R. Smith Eng. Manager  
(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_ (if applicable)

COMPANY NAME: OVERLAND

ADDRESS: Clarksburg NJ

Pick-up Date: 11-20-01 Truck No.: 12151 Vehicle Lic. No.: AE-6057

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**  
**7 Steel Road East**  
**Morrisville, PA 19067-0847**  
**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: \_\_\_\_\_

(Signature of authorized agent and title)

11/20/01

R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 5955  
Date: 11/21/01  
Time In: 06:15 AM

AN: LANGAN ENGINEERING

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

Truck: OVL 493

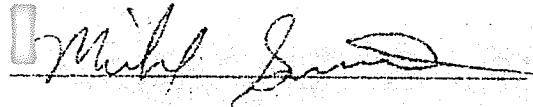
Gross: 76420

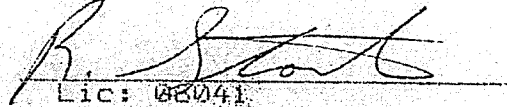
Tare: 26100

Net: 50320 Lbs. 25.16 Tons

Product: NO. 4 OIL

Time Out: 06:15 AM  
Manifest#: 55501



  
Lic: 08041



technologies

Manifest No.: 55501

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## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_  
Company Name: (Print or Type) Elements Perment  
Pick-up Address: 1525 Woodland Carlton Pa.  
(No.) (Street) (City) (State)  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Waste Stream Identification: \_\_\_\_\_ This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.  
Tons: \_\_\_\_\_ Cubic Yards: 2.0 Other: (Specify) \_\_\_\_\_  
Waste Type: Petroleum Cont Soil  
Special Handling Instructions, if any: None

### PROFILE / WASTE STREAM I.D. NUMBER:

LAN 0111010 A4

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 11/20/01 Signature: Mark Smith Env. Manager  
(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_  
COMPANY NAME: Opurland (if applicable)  
ADDRESS: Charlesburg NJ  
Pick-up Date: 1-20-01 Truck No.: 493 Vehicle Lic. No.: 192424

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**  
**7 Steel Road East**  
**Morrisville, PA 19067-0847**  
**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 11-21-01

(Signature of authorized agent and title)

TOP NOTE:  
BY BOARD BROKEN  
BTM LONGER



R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Tricket: 5954  
Date: 11/21/01  
Time In: 06:12 AM

ON: LANGAN ENGINEERING

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

Truck: LT17

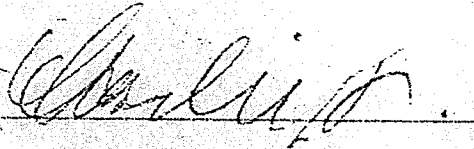
Gross: 82720

Tare: 25500

Net: 57220 Lbs. 28.61 Tons

Product: NO. 4 OIL

Time Out: 06:12 AM  
Manifest#: 55403

  
Lic: 06041



technologies

Manifest No.: 55403

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: 55403  
Company Name: (Print or Type) Elementis Pigments Inc.  
Pick-up Address: 1525 Wood Avenue Easton PA  
(No.) (Street) (City) (State)  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.  
Tons: \_\_\_\_\_ Cubic Yards: 20 Other: (Specify) \_\_\_\_\_  
Waste Type: Petroleum Contaminated Soil  
Special Handling Instructions, if any: none

PROFILE / WASTE STREAM I.D. NUMBER:

EA0011010A4

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 11/20/01 Signature: [Signature]  
(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_ (if applicable)  
COMPANY NAME: Ducalano  
ADDRESS: CLARKSBURG, NJ  
Pick-up Date: 11-20-01 Truck No.: 17 Vehicle Lic. No.: AE 59696 PA

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

[Signature]  
(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**  
**7 Steel Road East**  
**Morrisville, PA 19067-0847**  
**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 11/20/01  
[Signature]  
(Signature of authorized agent and title)



R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 6406  
Date: 12/14/01  
Time In: 01:22 PM  
Time Out: 01:22 PM  
Manifest #: 55503

From: LANGAN ENGINEERING

To: LAN0111010A4

Carrier: OVERLAND TRANSPORT

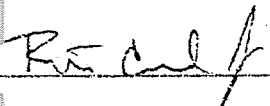
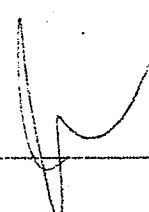
Truck: LT19

Weight: 77840

Rate: 26300

Net: 51540 Lbs. 23.77 Tons

Product: NO. 4 OIL

  
Lic: 06041 



Manifest No.: **55503**



**technologies**

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_

Company Name: (Print or Type) E Cementis Products Inc.

Pick-up Address: \_\_\_\_\_

(No.)

(Street)

(City)

(State)

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Waste Stream Identification: \_\_\_\_\_ This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: \_\_\_\_\_

Cubic Yards: 20

Other: (Specify) \_\_\_\_\_

Waste Type: Trilium Cemented Soil

Special Handling Instructions, if any: None

**PROFILE / WASTE STREAM I.D. NUMBER:**

LAN 0111010 A4

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12/14/01

Signature: Chris Renville

(Name and Title)

Engineering Manager

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_

COMPANY NAME: \_\_\_\_\_

(if applicable)

ADDRESS: \_\_\_\_\_

Pick-up Date: 12-14-01

Truck No.: LT 19

Vehicle Lic. No.: HE 39694

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

[Signature]

(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**

**7 Steel Road East**

**Morrisville, PA 19067-0847**

**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: \_\_\_\_\_

07.00 12-14-01

(Signature of authorized agent and title)

R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 6407  
Date: 12/14/01  
Time In: 01:30 PM

Time Out: 01:30 PM  
Manifest #: 55506

IN: LANGAN ENGINEERING

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

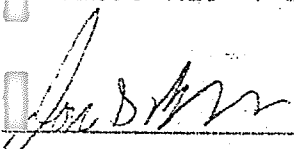
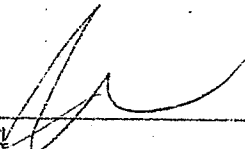
Truck: 777

Gross: 75660

Tare: 25480

Net: 50180 Lbs. 25.09 Tons

Product: NO. 4 OIL

  
Lic: 06041 

---

Manifest No.: 55506



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: \_\_\_\_\_

Company Name: (Print or Type) Elements Elements Inc

Pick-up Address: 1525 Wood Ave Easton Pa

(No.)

(Street)

(City)

(State)

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Waste Stream Identification: \_\_\_\_\_ This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: \_\_\_\_\_

Cubic Yards: 20

Other: (Specify) \_\_\_\_\_

Waste Type: PETROLEUM CONTAMINATED SOIL

Special Handling Instructions, if any: NONE

PROFILE / WASTE STREAM I.D. NUMBER: LANO111010A4

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12/14/01

Signature: Charles Kenneth Cunningham Manager

(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: \_\_\_\_\_

(if applicable)

COMPANY NAME: Overland Trans

ADDRESS: Clarkstown NJ

Pick-up Date: 12/14/01

Truck No.: 777

Vehicle Lic. No.: AF472E

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**  
**7 Steel Road East**  
**Morrisville, PA 19067-0847**  
**Permit #301254**

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: \_\_\_\_\_

(Signature of authorized agent and title)

R3 TECHNOLOGIES  
7 STEEL ROAD EAST  
MORRISVILLE, PA 19067-0847  
215.428.1700

Ticket: 6408  
Date: 12/14/01  
Time In: 01:35 PM

AN: LANGAN ENGINEERING

Time Out: 01:35 PM  
Manifest #: 55505

Job: LAN0111010A4

Hauler: OVERLAND TRANSPORT

Truck: ovl 595

Gross: 76680

Tare: 23180

Net: 53500 Lbs. 26.75 Tons

Product: NO. 4 OIL

*Paul R. SAS*

*[Signature]*  
Lic: 06041





technologies

Manifest No. 55505

CLEAN UP LOAD

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

## NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No. Generator of Waste:

Company Name: (Print or Type)

Pick-up Address:

(No.)

(Street)

(City)

(State)

Telephone Number:

Fax Number:

Waste Stream Identification:

This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons:

Cubic Yards:

Other: (Specify)

Waste Type:

Special Handling Instructions, if any:

PROFILE / WASTE STREAM I.D. NUMBER:

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date:

Signature:

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.:

COMPANY NAME:

ADDRESS:

Pick-up Date:

Truck No.:

Vehicle Lic. No.:

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: R3 Technologies, Inc.

7 Steel Road East

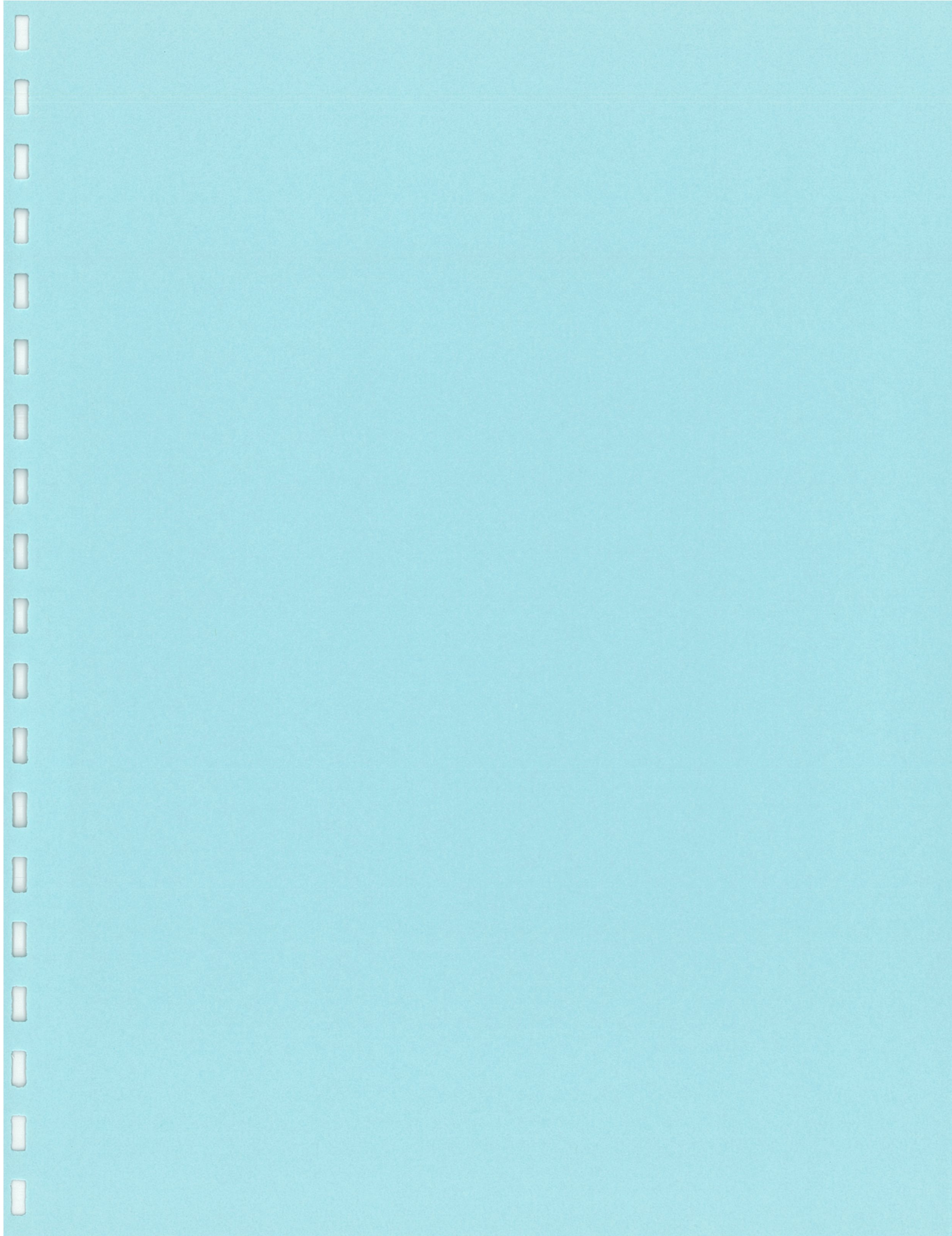
Morrisville, PA 19067-0847

Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date:

(Signature of authorized agent and title)





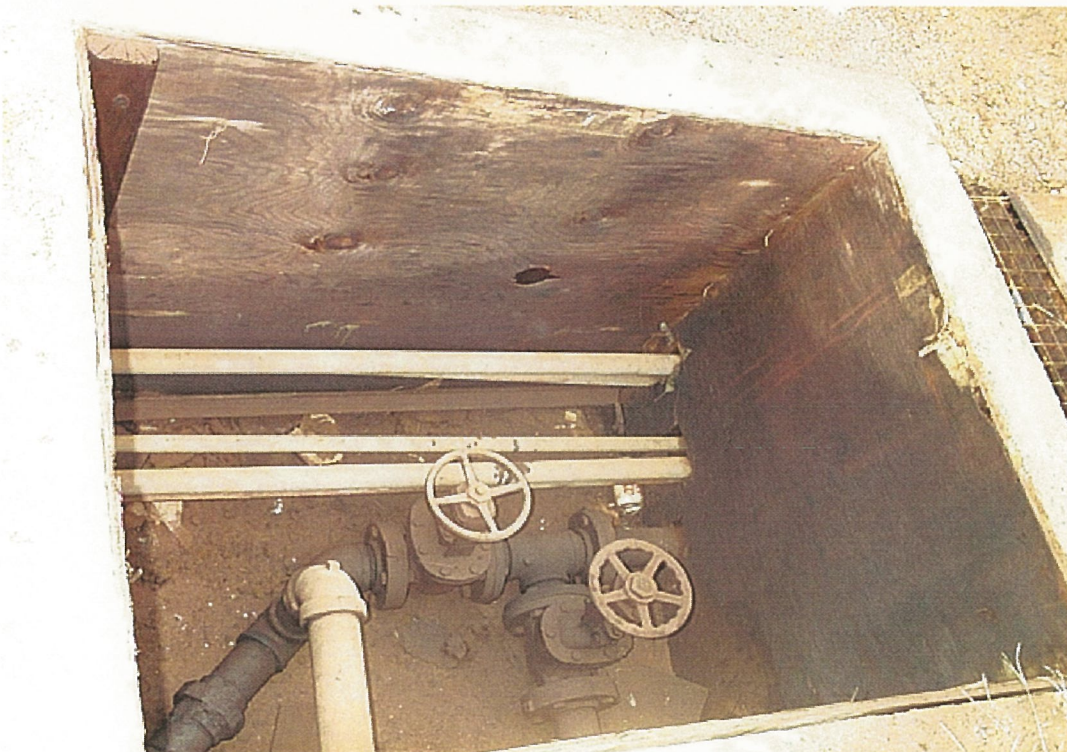
## **APPENDIX C**

### **PHOTOGRAPH DOCUMENTATION OF SITE ACTIVITIES**





**Surface view of two 15,000-gallon No. 4 heating oil UST area.**



**Valve and piping vault associated with two 15,000-gallon UST's and two remote fill ports.**





**Fuel oil pump house associated with the two 15,000-gallon UST's.**



**Initiation of excavation over the two 15,000-gallon UST's.**





**Vent pipe removal activities.**



**Vacuum truck pumping contents of the two 15,000-gallon UST's.**





**Piping removal from pipe trench.**



**Exposed 15,000-gallon No. 4 fuel oil UST's (UST No. 6).**





**Piping removal from the pipe trench that leads from the pump house to the valve vault.**





**Clean fill material removal above and aside of the two UST's**



**Former valve vault and pipe trench location.**





**Petroleum impacted fill material removal.**



**No. 4 fuel oil free product on groundwater surface.**





**Exposed UST's ready for removal.**



**Removal of the UST's with a seventy-ton crane.**





**Removal of a 15,000-gallon UST from the excavation.**



**Maneuvering the UST's for loading on to trailers.**





**Placement of the UST on the truck for transport.**



**Removal of free product from groundwater surface.**





**Removal of free product from groundwater surface.**



**The two UST's emptied and ready for transport.**





**Installation of two 4-inch diameter well points for free product monitoring and extraction.**



**Load out of petroleum impacted soil for transport to disposal facility.**





**Load out of petroleum impacted soil for transport to disposal facility.**



**Load out of petroleum impacted soil for transport to disposal facility.**





## **APPENDIX D**

### **COMPLETE LABORATORY DATA PACKAGES**



10/29/01

**For: LANGAN ENG. & ENVIRON. SERV. INC**  
**GEORGETOWN CROSSING SUITE 225**  
**3655 ROUTE 202**  
**DOYLESTOWN PA 18901**  
**215-348-7101 FAX 215-348-7125**
**NJSRPID #:**  
**Client Project #: 3576201**  
**Client Project Name: ELEMENTIS-EASTON PA**
**Wastex Sample ID: AC33002**  
**Field Sample ID: PE-2 3.5-4'**
**Collection Date: 10/12/01**    **Collection Time: 14:10**  
**Sample Collector CLIENT**  
**Submittal Date: 10/19/01**    **Submittal Time: 19:15**  
**Matrix: SO**    **Sample Type: GRAB**

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos. 4,5,6) Semivolts.</b>							
Fluorene	<73	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Anthracene	<73	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Phenanthrene	<73	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Pyrene	77	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Benzo(a)anthracene	<73	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Chrysene	110	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Benzo(b)fluoranthene	<73	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Benzo(a)pyrene	<73	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
Benzo(g,h,i)perylene	<73	ug/kg	73	SS	10/25/01	17:00	SW846 8270C
<b>Oil, Fuel (Nos. 4,5,6) Volatiles</b>							
Benzene	<210	ug/kg	210	LM	10/26/01	20:12	SW846 8260B
Naphthalene	<320	ug/kg	320	LM	10/26/01	20:12	SW846 8260B
% Solids	90.6	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by:



WASTEX  
INDUSTRIES, INC.

28 S. Hanover Street  
Pottstown, PA 19464  
610/327-0880



For: LANGAN ENG. & ENVIRON. SERV. INC  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/29/01

NJSRPID # :  
Client Project # : 3576201  
Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33006  
Field Sample ID: PE-3 9.5-10'

Collection Date: 10/18/01 Collection Time: 11:30  
Sample Collector: CLIENT  
Submittal Date: 10/19/01 Submittal Time: 19:15  
Matrix: SO Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos. 4,5,6) Semivol.</b>							
Fluorene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Anthracene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Phenanthrene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Pyrene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Benzo(a)anthracene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Chrysene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Benzo(b)fluoranthene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Benzo(a)pyrene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
Benzo(g,h,i)perylene	<78	ug/kg	78	SS	10/25/01	15:37	SW846 8270C
<b>Oil, Fuel (Nos. 4,5,6) Volatiles</b>							
Benzene	<220	ug/kg	220	LM	10/26/01	21:00	SW846 8260B
Naphthalene	<330	ug/kg	330	LM	10/26/01	21:00	SW846 8260B
% Solids	85.1	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by: \_\_\_\_\_



WASTEX  
INDUSTRIES, INC.

28 S. Hanover Street  
Pottstown, PA 19464  
610/327-0880



To: LANGAN ENG. & ENVIRON. SERV. INC  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/29/01

NJSRPID # :  
Client Project #: 3576201  
Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33007  
Field Sample ID: PE-4 9.5-10'

Collection Date: 10/18/01 Collection Time: 11:50  
Sample Collector CLIENT  
Submittal Date: 10/19/01 Submittal Time: 19:15  
Matrix: SO Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos. 4,5,6) Semivolts.</b>							
Fluorene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Anthracene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Phenanthrene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Pyrene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Benzo(a)anthracene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Chrysene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Benzo(b)fluoranthene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Benzo(a)pyrene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
Benzo(g,h,i)perylene	<79	ug/kg	79	SS	10/25/01	16:04	SW846 8270C
<b>Oil, Fuel (Nos. 4,5,6) Volatiles</b>							
Benzene	<240	ug/kg	240	LM	10/26/01	23:25	SW846 8260B
Naphthalene	<350	ug/kg	350	LM	10/26/01	23:25	SW846 8260B
% Solids	84.2	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by: 



**LANGAN ENG. & ENVIRON. SERV. INC**  
**GEORGETOWN CROSSING SUITE 225**  
**3655 ROUTE 202**  
**DOYLESTOWN PA 18901**  
**215-348-7101 FAX 215-348-7125**

10/29/01

**NJSRPID # :**  
**Client Project # : 3576201**  
**Client Project Name: ELEMENTIS-EASTON PA**

**Wastex Sample ID: AC33008**  
**Field Sample ID: PE-5 9-9.5'**

**Collection Date: 10/18/01**    **Collection Time: 13:10**  
**Sample Collector: CLIENT**  
**Submittal Date: 10/19/01**    **Submittal Time: 19:15**  
**Matrix: SO**    **Sample Type: GRAB**

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos.4,5,6) Semivolts.</b>							
Fluorene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Anthracene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Phenanthrene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Pyrene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Benzo(a)anthracene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Chrysene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Benzo(b)fluoranthene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Benzo(a)pyrene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C
Benzo(g,h,i)perylene	<83	ug/kg	83	SS	10/25/01	16:32	SW846 8270C

**Oil, Fuel (Nos. 4,5,6) Volatiles**

Benzene	<240	ug/kg	240	LM	10/27/01	0:13	SW846 8260B
Naphthalene	<350	ug/kg	350	LM	10/27/01	0:13	SW846 8260B
% Solids	79.7	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by: \_\_\_\_\_



**TO: LANGAN ENG. & ENVIRON. SERV. INC**  
**GEORGETOWN CROSSING SUITE 225**  
**3655 ROUTE 202**  
**DOYLESTOWN PA 18901**  
**215-348-7101 FAX 215-348-7125**

10/29/01

**NJSRPID #:**  
**Client Project # : 3576201**  
**Client Project Name: ELEMENTIS-EASTON PA**

**Wastex Sample ID: AC33011**  
**Field Sample ID: PE-6 7-7.5'**

**Collection Date: 10/19/01**    **Collection Time: 14:40**  
**Sample Collector CLIENT**  
**Submittal Date: 10/19/01**    **Submittal Time: 19:15**  
**Matrix: SO**    **Sample Type: GRAB**

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos.4,5,6) Semivol.</b>							
Fluorene	2600	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Anthracene	<790	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Phenanthrene	5500	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Pyrene	1200	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Benzo(a)anthracene	<790	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Chrysene	1000	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Benzo(b)fluoranthene	<790	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Benzo(a)pyrene	<790	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
Benzo(g,h,i)perylene	<790	ug/kg	790	SS	10/25/01	17:27	SW846 8270C
<b>Oil, Fuel (Nos. 4,5,6) Volatiles</b>							
Benzene	<310	ug/kg	310	LM	10/27/01	1:01	SW846 8260B
Naphthalene	<470	ug/kg	470	LM	10/27/01	1:01	SW846 8260B
% Solids	83.6	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by:



WASTEX  
INDUSTRIES, INC.

28 S. Hanover Street  
Pottstown, PA 19464  
610/327-0880



To: LANGAN ENG. & ENVIRON. SERV. INC.  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/29/01

NJSRPID # :

Client Project # : 3576201

Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33012

Collection Date: 10/19/01 Collection Time: 14:50

Field Sample ID: PE-7 7-7.5'

Sample Collector CLIENT

Submittal Date: 10/19/01 Submittal Time: 19:15

Matrix: SO Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
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Oil, Fuel (Nos.4,5,6) Semivolts.

Fluorene	4100	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Anthracene	<790	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Phenanthrene	7000	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Pyrene	1200	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Benzo(a)anthracene	<790	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Chrysene	1100	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Benzo(b)fluoranthene	<790	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Benzo(a)pyrene	<790	ug/kg	790	SS	10/25/01	17:55	SW846 8270C
Benzo(g,h,i)perylene	<790	ug/kg	790	SS	10/25/01	17:55	SW846 8270C

Oil, Fuel (Nos. 4,5,6) Volatiles

Benzene	<230	ug/kg	230	LM	10/27/01	1:49	SW846 8260B
Naphthalene	1700	ug/kg	345	LM	10/27/01	1:49	SW846 8260B
% Solids	84.1	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by: 



WASTEX  
INDUSTRIES, INC.

28 S. Hanover Street  
Pottstown, PA 19464  
610/327-0880



To: LANGAN ENG. & ENVIRON. SERV. INC  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/29/01

NJSRPID # :  
Client Project # : 3576201  
Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33009  
Field Sample ID: TRIP BLANK

Collection Date: 10/12/01 Collection Time: 0:00  
Sample Collector CLIENT  
Submittal Date: 10/19/01 Submittal Time: 19:15  
Matrix: SO Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos. 4,5,6) Volatiles</b>							
Benzene	<230	ug/kg	230	LM	10/26/01	18:35	SW846 8260B
Naphthalene	<350	ug/kg	350	LM	10/26/01	18:35	SW846 8260B

Comments:

Released by: 





TO: LANGAN ENG. & ENVIRON. SERV. INC  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

11/1/01

NJSRPID # :  
Client Project #: 3576201  
Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33003  
Field Sample ID: GW-1

Collection Date: 10/18/01 Collection Time: 9:35  
Sample Collector CLIENT  
Submittal Date: 10/19/01 Submittal Time: 19:15  
Matrix: WATE Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos.4,5,6) Semivol.</b>							
Phenanthrene	15	ug/l	2	SS	10/25/01	13:19	SW846 8270C
Pyrene	3	ug/l	2	SS	10/25/01	13:19	SW846 8270C
Chrysene	4	ug/l	2	SS	10/25/01	13:19	SW846 8270C
<b>Oil, Fuel (Nos.4,5,6) Volatiles</b>							
Benzene	<2	ug/L	2	LM	10/31/01	4:26	SW846 8260B
Naphthalene	22	ug/L	3	LM	10/31/01	4:26	SW846 8260B

Comments:

Released by: 



To: LANGAN ENG. & ENVIRON. SERV. INC  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/31/01

NJSRPID # :  
Client Project # : 3576201  
Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33004  
Field Sample ID: GW-2

Collection Date: 10/18/01 Collection Time: 10:00  
Sample Collector CLIENT  
Submittal Date: 10/19/01 Submittal Time: 19:15  
Matrix: WATE Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos. 4,5,6) Semivol.</b>							
Phenanthrene	4	ug/l	2	SS	10/25/01	12:51	SW846 8270C
Pyrene	<2	ug/l	2	SS	10/25/01	12:51	SW846 8270C
Chrysene	<2	ug/l	2	SS	10/25/01	12:51	SW846 8270C
<b>Oil, Fuel (Nos. 4,5,6) Volatiles</b>							
Benzene	<2	ug/L	2	LM	10/30/01	19:33	SW846 8260B
Naphthalene	9	ug/L	3	LM	10/30/01	19:33	SW846 8260B

Comments:

Released by: \_\_\_\_\_



WASTEX  
INDUSTRIES, INC.

28 S. Hanover Street  
Pottstown, PA 19464  
610/327-0880



TO: LANGAN ENG. & ENVIRON. SERV. INC  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/31/01

NJSRPID #:

Client Project #: 3576201

Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33005  
Field Sample ID: FIELD BLANK

Collection Date: 10/18/01 Collection Time: 10:10  
Sample Collector CLIENT  
Submittal Date: 10/19/01 Submittal Time: 19:15  
Matrix: WATE Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos.4,5,6) Semivols.</b>							
Phenanthrene	<2	ug/l	2	SS	10/25/01	12:23	SW846 8270C
Pyrene	<2	ug/l	2	SS	10/25/01	12:23	SW846 8270C
Chrysene	<2	ug/l	2	SS	10/25/01	12:23	SW846 8270C
<b>Oil, Fuel (Nos.4,5,6) Volatiles</b>							
Benzene	<2	ug/L	2	LM	10/30/01	12:21	SW846 8260B
Naphthalene	<3	ug/L	3	LM	10/30/01	12:21	SW846 8260B

Comments:

Released by: \_\_\_\_\_



WASTEX  
INDUSTRIES, INC.

28 S. Hanover Street  
Pottstown, PA 19464  
610/327-0880



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GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/31/01

NJSRPID # :

Client Project # : 3576201

Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33010

Collection Date: 10/18/01 Collection Time: 0:00

Field Sample ID: TRIP BLANK

Sample Collector CLIENT

Submittal Date: 10/19/01 Submittal Time: 19:15

Matrix: WATE Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
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Oil, Fuel (Nos. 4,5,6) Volatiles

Benzene	<2	ug/L	2	LM	10/30/01	13:09	SW846 8260B
Naphthalene	<3	ug/L	3	LM	10/30/01	13:09	SW846 8260B

Comments:

Released by: 



**LANGAN ENG. & ENVIRON. SERV. INC**  
**GEORGETOWN CROSSING SUITE 225**  
**3655 ROUTE 202**  
**DOYLESTOWN PA 18901**  
**215-348-7101 FAX 215-348-7125**

11/2/01

NJSRPID #:

Client Project #: 3576201

Client Project Name: ELEMENTIS-EASTON PA

**Wastex Sample ID: AC33013**

Collection Date: 10/18/01 Collection Time: 14:45

**Field Sample ID: WC**

Sample Collector CLIENT

Submittal Date: 10/19/01 Submittal Time: 19:15

Matrix: SO Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>PCBs (Dry Weight)</b>							
Aroclor 1016	<0.30	mg/kg	0.30	DLB	10/23/91	16:22	SW846 8082
Aroclor 1221	<0.30	mg/kg	0.30	DLB	10/23/91	16:22	SW846 8082
Aroclor 1232	<0.30	mg/kg	0.30	DLB	10/23/91	16:22	SW846 8082
Aroclor 1242	<0.30	mg/kg	0.30	DLB	10/23/91	16:22	SW846 8082
Aroclor 1248	<0.30	mg/kg	0.30	DLB	10/23/91	16:22	SW846 8082
Aroclor 1254	<0.30	mg/kg	0.30	DLB	10/23/91	16:22	SW846 8082
Aroclor 1260	<0.30	mg/kg	0.30	DLB	10/23/91	16:22	SW846 8082
Mercury (Dry Weight)	<0.5	mg/kg	0.5	JLC	10/24/01	12:35	SW846 7471A
<b>Metals, Heavy (Dry Weight)</b>							
Arsenic	13	mg/kg	1	JLS	10/26/01	10:30	SW846 6010B
Barium	48.8	mg/kg	0.4	JLS	10/26/01	10:30	SW846 6010B
Cadmium	<0.4	mg/kg	0.4	JLS	10/26/01	10:30	SW846 6010B
Chromium	37.2	mg/kg	0.4	JLS	10/26/01	10:30	SW846 6010B
Lead	21	mg/kg	1	JLS	10/26/01	10:30	SW846 6010B
Selenium	<1	mg/kg	1	JLS	10/26/01	10:30	SW846 6010B
Silver	<0.6	mg/kg	0.6	JLS	10/26/01	10:30	SW846 6010B
Copper (Dry Weight)	150	mg/kg	0.4	JLS	10/26/01	10:30	SW846 6010B
Nickel (Dry Weight)	24.6	mg/kg	0.6	JLS	10/26/01	10:30	SW846 6010B
Zinc (Dry Weight)	372	mg/kg	1	JLS	10/26/01	10:30	SW846 6010B
Total Petro. Hydrocarb. (Dry	1182	mg/kg	10.0	DKJ	10/23/01	12:00	EPA 418.1
TOX (Dry Wt)	<10.0	mg/kg	10.0	OUT	11/2/01	0:00	SW846 9020B
Cyanide, Reactive	<2.5	mg/kg	2.5	AD	10/24/01	8:30	SW846 7.3.3.
pH-Corrosivity	7.7	pH Units	0.10	AD	10/22/01	11:00	SW846 9045C
Flash Point Ignitability	>140	degrees F	140	TH	10/22/01	14:30	SW846 1010



For: LANGAN ENG. & ENVIRON. SERV. INC  
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DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

11/2/01

NJSRPID # :  
Client Project # : 3576201  
Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33013

Collection Date: 10/18/01 Collection Time: 14:45

Field Sample ID: WC

Sample Collector CLIENT

Submittal Date: 10/19/01 Submittal Time: 19:15

Matrix: SO Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
Sulfide, Reactive	60.1	mg/kg	50.0	AD	10/24/01	10:30	SW846 7.3.4.
% Solids	83.7	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by: 



For: **LANGAN ENG. & ENVIRON. SERV. INC**  
**GEORGETOWN CROSSING SUITE 225**  
**3655 ROUTE 202**  
**DOYLESTOWN PA 18901**  
**215-348-7101 FAX 215-348-7125**

11/2/01

**NJSRPID # :**  
**Client Project # : 3576201**  
**Client Project Name: ELEMENTIS-EASTON PA**

**Wastex Sample ID: AC33014**  
**Field Sample ID: WC**

**Collection Date: 10/18/01**    **Collection Time: 14:45**  
**Sample Collector: CLIENT**  
**Submittal Date: 10/19/01**    **Submittal Time: 19:15**  
**Matrix: SO**    **Sample Type: GRAB**

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
Total Petro. Hydrocarb. (Dry)	1501	mg/kg	10.0	DKJ	10/23/01	12:00	EPA 418.1
TOX (Dry Wt)	<10.0	mg/kg	10.0	OUT	11/2/01	0:00	SW846 9020B
% Solids	88.1	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by: \_\_\_\_\_



To: LANGAN ENG. & ENVIRON. SERV. INC  
GEORGETOWN CROSSING SUITE 225  
3655 ROUTE 202  
DOYLESTOWN PA 18901  
215-348-7101 FAX 215-348-7125

10/29/01

NJSRPID # :  
Client Project # : 3576201  
Client Project Name: ELEMENTIS-EASTON PA

Wastex Sample ID: AC33001  
Field Sample ID: PE-1 3.5-4'

Collection Date: 10/12/01 Collection Time: 13:10  
Sample Collector CLIENT  
Submittal Date: 10/19/01 Submittal Time: 19:15  
Matrix: SO Sample Type: GRAB

Parameter	Result	Units	MDL	Analyst	Date Analyzed	Time Analyzed	Method Reference
<b>Oil, Fuel (Nos. 4,5,6) Semivol.</b>							
Fluorene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Anthracene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Phenanthrene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Pyrene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Benzo(a)anthracene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Chrysene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Benzo(b)fluoranthene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Benzo(a)pyrene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
Benzo(g,h,i)perylene	<81	ug/kg	81	SS	10/25/01	14:14	SW846 8270C
<b>Oil, Fuel (Nos. 4,5,6) Volatiles</b>							
Benzene	<240	ug/kg	240	LM	10/26/01	19:24	SW846 8260B
Naphthalene	<360	ug/kg	360	LM	10/26/01	19:24	SW846 8260B
% Solids	82.4	%	0.01	AD	10/22/01	10:25	EPA 160.3

Comments:

Released by: 